

WHAT IS CLAIMED IS:

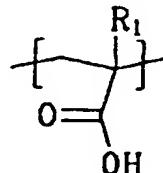
1. A photosensitive resin composition comprising a self-curable binder resin, a crosslinking compound having at least two ethylenically unsaturated bonds, a photopolymerization initiator, and a solvent, wherein the 5 self-curable binder resin is a compound represented as in the following Chemical Formula 1:

[Chemical Formula 1]

- A - B - C -

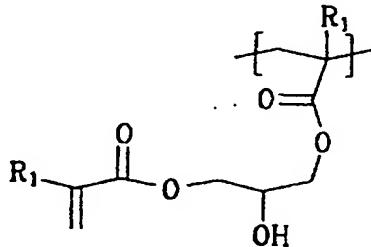
10 where A is a compound represented as in the following Chemical Formula 1-A;

[Chemical Formula 1-A]



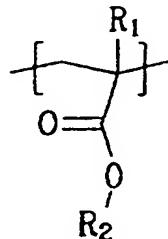
15 where B is a compound represented as in the following Chemical Formula 1-B;

[Chemical Formula 1-B]

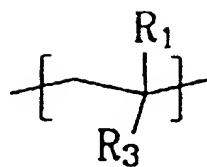


where C is a compound represented as in the following Chemical Formula 1-C and/or Chemical Formula 1-C';

[Chemical Formula 1-C]



[Chemical Formula 1-C']



wherein R₁ is H or -CH₃, R₂ is an alkyl group having 1 to 8 carbon atoms, a hydroxyl group substituted alkyl group, or a substituted or 5 unsubstituted aryl group having 1 to 12 carbon atoms, and R₃ is a benzene, an alkyl group having 1 to 8 carbon atoms, an alkoxy group having 1 to 8 carbon atoms, a benzene having a C₁ ~ C₆ alkyl substituent, a benzene having a C₁ ~ C₈ alkoxy substituent, or a hydroxide group or halogen substituted benzene.

2. A photosensitive resin composition in accordance with claim 1, 10 wherein an A portion in a binder resin of the Chemical Formula 1 accounts for 10 to 50 mol%, a B portion accounts for 0 to 15 mol%, and a C portion accounts for 90 to 50 mol% based on the total binder resin.

3. A photosensitive resin composition in accordance with claim 1, wherein the self-curable binder resin is a self-curable binder resin obtained by 15 reacting a copolymer which is prepared by copolymerizing a compound of the following Chemical Formula 2 with one or both of a compound of the following Chemical Formula 3 and a compound of the following Chemical Formula 4 with a compound of the following Chemical Formula 5:

[Chemical Formula 2]

20 CH₂=C(R₁)COOH

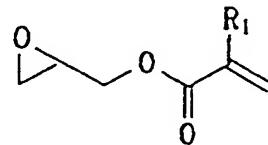
[Chemical Formula 3]

CH₂=C(R₁)COOR₂

[Chemical Formula 4]

CH₂=C(R₁)-R₃

25 [Chemical Formula 5]



wherein R₁ is hydrogen or a methyl group, R₂ is a compound selected

from the group consisting of an alkyl group having 1 to 8 carbon atoms, a hydroxy group substituted alkyl group, and a substituted or unsubstituted aryl group or arylalkyl group having 4 to 12 carbon atoms, and R₃ is a compound selected from the group consisting of a benzene, an alkyl group having 1 to 8 carbon atoms, an alkoxy group having 1 to 8 carbon atoms, a benzene having a C₁ ~ C₆ alkyl substituent, a benzene having a C₁ ~ C₈ alkoxy substituent, and a hydroxide group or halogen substituted benzene.

4. A photosensitive resin composition in accordance with claim 3, wherein a compound of the Chemical Formula 2 comprising the copolymer is 10 acrylic acid or methacrylic acid, a compound of the Chemical Formula 3 is a compound selected from the group consisting of benzyl(meth)acrylate, phenyl(meth)acrylate, cyclohexyl(meth)acrylate, methyl(meth)acrylate, ethyl(meth)acrylate, and 2-ethylhexyl(meth)acrylate, and a compound of the Chemical Formula 4 is a compound selected from the group consisting of 15 styrene, 4-hydroxystyrene, 4-methylstyrene, and vinyl acetate.

5. A photosensitive resin composition in accordance with claim 3, wherein a compound of the Chemical Formula 5 is glycidyl acrylate or glycidyl methacrylate.

6. A photosensitive resin composition in accordance with claim 3, 20 wherein a number average molecular weight of the copolymer is from 1,000 to 100,000.

7. A photosensitive resin composition in accordance with claim 3, wherein a compound amount of the Chemical Formula 5 is from 0.1 to 90 mol% based on a carboxylic acid containing monomer of Chemical Formula 2 in a 25 binder resin of Chemical Formula 1.

8. A photosensitive resin composition in accordance with claim 3, wherein a compound amount of the Chemical Formula 2 is from 10 to 90 mol% based on the mole sum of Chemical Formulae 2, 3, and 4.

9. A photosensitive resin composition in accordance with claim 1, 30 further comprising a crosslinking compound having at least two unsaturated groups.

10. A photosensitive resin composition in accordance with claim 9,

wherein the crosslinking compound is a compound selected from the group consisting of polyethylene glycol di(meth)acrylate, propylene glycol di(meth)acrylate, 1,3-butanediol di(meth)acrylate, neopentyl glycol di(meth)acrylate, 1,6-hexanediol di(meth)acrylate, trimethylolpropane tri(meth)acrylate, pentaerythritol di(meth)acrylate, pentaerythritol tri(meth)acrylate, pentaerythritol tetra(meth)acrylate, pentaerythritol hexa(meth)acrylate, dipentaerythritol penta(meth)acrylate, dipentaerythritol hexa(meth)acrylate, trimethylolpropane triacrylate, and a mixture thereof.

11. A photosensitive resin composition in accordance with claim 9, wherein the crosslinking compound amount is from 0 to 200 weight% based on the self-curable binder resin of Chemical Formula 1.

12. A photosensitive resin composition prepared by mixing a copolymer which is prepared by copolymerizing a compound of the following Chemical Formula 2 and one or both of a compound of the following Chemical Formula 3 and a compound of the following Chemical Formula 4 with a compound of the following Chemical Formula 5, a photoinitiator, and a solvent:

[Chemical Formula 2]



[Chemical Formula 3]

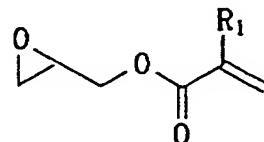
20 [Chemical Formula 4]



[Chemical Formula 5]



[Chemical Formula 5]



25 wherein R₁ is hydrogen or methyl group, R₂ is a compound selected from the group consisting of an alkyl group having 1 to 8 carbon atoms, a hydroxy group substituted alkyl group, and a substituted or unsubstituted aryl group or arylalkyl group having 4 to 12 carbon atoms, and R₃ is a compound selected from the group consisting of a benzene, an alkyl group having 1 to 8

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carbon atoms, an alkoxy group having 1 to 8 carbon atoms, a benzene having a C₁ ~ C₆ alkyl substituent, a benzene having a C₁ ~ C₈ alkoxy substituent, and a hydroxide group or halogen substituted benzene.

13. A photosensitive resin composition in accordance with claim 12,

5 wherein a compound of the Chemical Formula 2 comprising the copolymer is acrylic acid or methacrylic acid, a compound of the Chemical Formula 3 is a compound selected from the group consisting of benzyl(meth)acrylate, phenyl(meth)acrylate, cyclohexyl(meth)acrylate, methyl(meth)acrylate, ethyl(meth)acrylate, and 2-ethylhexyl(meth)acrylate, and a compound of the

10 Chemical Formula 4 is a compound selected from the group consisting of styrene, 4-hydroxystyrene, 4-methylstyrene, and vinyl acetate.

14. A photosensitive resin composition in accordance with claim 12, wherein a compound of the Chemical Formula 5 is glycidyl acrylate or glycidyl methacrylate.

15 15. A photosensitive resin composition in accordance with claim 12, wherein a number average molecular weight of the copolymer is from 1,000 to 100,000.

16. A photosensitive resin composition in accordance with claim 12, wherein a compound amount of the Chemical Formula 2 is from 10 to 90 mol%

20 based on the mole sum of Chemical Formulae 2, 3, and 4.